west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Austin Caperton, Cabinet Secretary
dep.wv.gov

April 30, 2019

James J. Sellitti
3125 Pennsylvania Avenue
P.O. Box 3095
Weirton, WV 26062

RE: Weirton BOP Demolition

Dear Mr. Sellitti,

This letter is in response to your letter of April 18, 2019, regarding the analysis of dust samples taken after the Weirton BOP demolition that you provided. It was unclear where and how these samples were obtained, but they do not appear to be ambient air samples.

Your letter included a report from PACE Analytical with the analytical results for samples received by their lab on March 23, 2019. The report contained results of particle size testing of samples taken on March 10th and 11th, conducted by Particle Technology Labs. The particle size distribution results for the samples analyzed indicate a maximum of 0.25% of the material was smaller than 2.75 micrometers in diameter, and 95% of the material was greater than 10 micrometers in diameter.

These data cannot be directly correlated to the National Ambient Air Quality Standard (NAAQS) which is measured in terms of the mass of particles of a specific size range contained in a specific volume of ambient air, micrograms per cubic meter of air (ug/m^3), the sampling of which must meet rigorous criteria.

There are essentially two federal air quality standards for Particulate Matter, PM_{10} and $PM_{2.5}$. These standards are based on particle size. PM_{10} consists of particles 10 micrometers and smaller. Particles larger than this are generally considered non-respirable. $PM_{2.5}$ consists of fine inhalable particles, with diameters that are 2.5 micrometers and smaller. This is a subset of PM_{10}. These could potentially be the particles that would pose the greatest health risk.

The United States Environmental Protection Agency establishes NAAQS for pollutants considered harmful to public health and the environment, including particulate matter. There are two types of these federal standards. Primary standards provide public health protection, including for sensitive populations such as children, asthmatics and the elderly. Secondary standards provide public welfare protection, such as protection against decreased visibility and

damage to animals, crops, vegetation, and buildings. West Virginia adopts these ambient air quality standards under 40 CSR 8.

The 24-hour primary and secondary NAAQS for PM_{10} is 150 ug/m^3 not to be exceeded more than once per year on average over 3 years. The 24-hour primary and secondary NAAQS for $PM_{2.5}$ is 35 ug/m^3 based on the 98^{th} percentile, averaged over 3 years. Additional details can be found at www.epa.gov/criteria-air-pollutants/naaqs-table.

Preliminary monitoring data collected for March 9, 2019 at Summit Circle indicated the highest PM_{10} value was 20.1 ug/m^3 for the 7:00 am hour and a 24-hour average of 12.2 $ug/$. Preliminary monitoring data at Marland Heights indicated the highest PM_{10} value was 223.6 ug/m^3 for the 9:00 am hour and a 24-hour average of 27.3 ug/m^3. $PM_{2.5}$ is a subset of $PM_{10,}$ and the PM_{10} monitored value was lower than the $PM_{2.5}$ standard, therefore, no NAAQS standards were exceeded. There was no violation of West Virginia or Federal ambient air quality standards.

If I may be of any further assistance do not hesitate to contact me by email at Eric.P.Weisenborn@wv.gov or by phone at (304) 238-1220.

Sincerely,

Eric P. Weisenborn
Assistant Director, Northern Panhandle Regional Office
WV DEP Division of Air Quality